

MATBEAM360

MATBEAM360 is an condensing lens module of the LED matrix module, it employs a patented design using a multi-layer fly-eye lens matrix. It features a small focal point, high light density, and high brightness, making it suitable for high-intensity narrow-angle beam lighting and high-density spotlight applications. During operation, MATBEAM360 combines with an LED matrix light source board to create a high-power LED module. It offers easy, quick, and convenient post-upgrade maintenance. The light shape parameters can be customized to meet specific requirements, and it can be adapted for use with infrared and ultraviolet light sources.

MATBEAM360 Lens Module

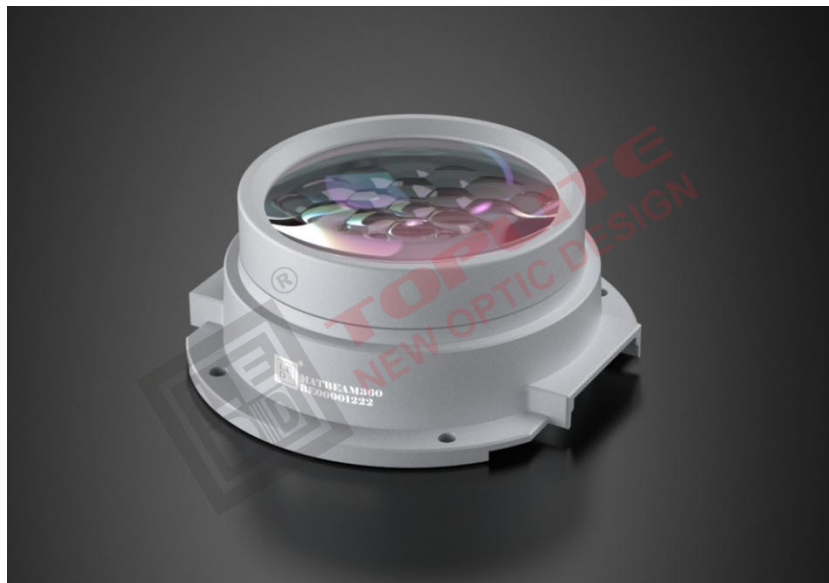


Figure 1. MATBEAM360

- Fly-eye lens unit: 37 pcs
- Lens aperture: $\varnothing 70\text{mm}$
- Applicable power range: 330~740W
- Focal length(F): $72\pm 2\text{mm}$
- Focal spot diameter (G): $\geq 6.5\text{mm}$, depending on the size of LED luminous surface
- Mechanical dimension: $\varnothing 110\text{mm} \times \text{L}104\text{mm} \times \text{H}44.7\text{mm}$

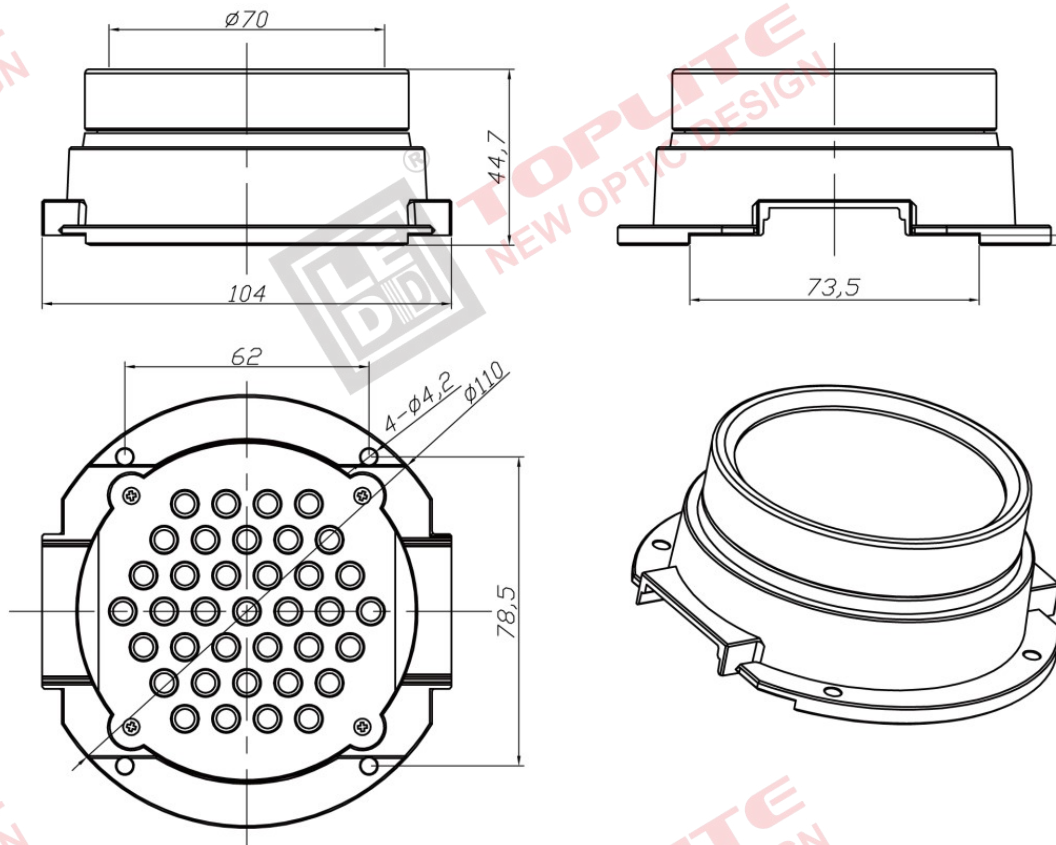


Figure 2. Mechanical dimensions of MATBEAM360

LED Matrix Board



Figure3. LED matrix board, adapt with MATBEAM360

- Quantity of LED: 37
- LED package required: 3030
- Total Power: unit power × 37, up to 740W
- PCB layout drawing: available upon request
- LED matrix board sample: available upon request during the test phase
- Bulk order: please purchase the LED matrix board from qualified LED packaging manufacturers.

MATBEAM360 LED Matrix Module

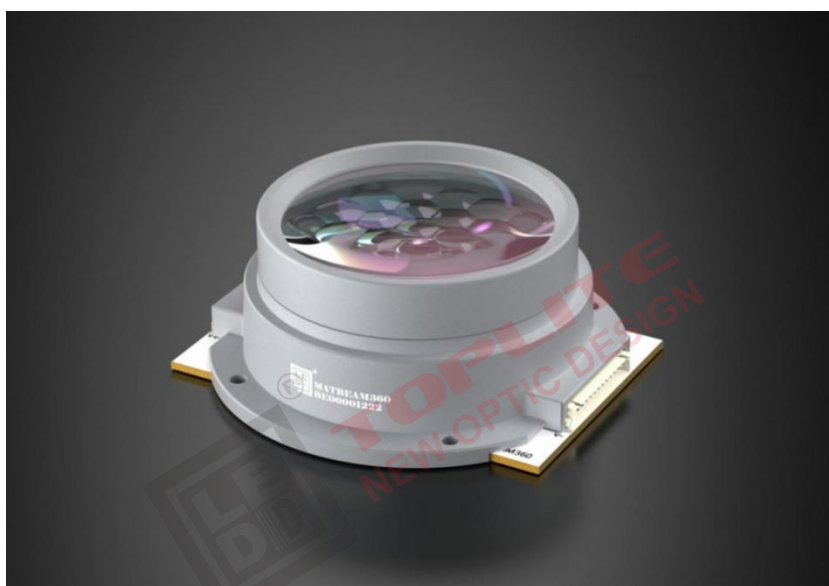


Figure 4. MATBEAM360 LED matrix module

- Photoelectric characteristics:

LED matrix module I	
LED	OSRAM OSTAR® Projection Compact KW CSLNM1.TG
Input	3.0 A × 3
Power	330 W
Luminous flux	21,600 lm
Iris(G)	Ø6.5mm
LED matrix module II	
LED	Luminus Devices SFT12
Input	4.0A×3
Power	520W
Luminous flux	30,000 lm
Iris(G)	Ø8.0mm

- Collimating optics for test:

Collimating optics I	
Model No.	IMMBEAM224230
Type	Lens set
Aperture	Ø224mm
Collimating optics II	
Model No.	D-BEAM320
Type	Reflector
Aperture	Ø320mm

- Optical path diagram for test:

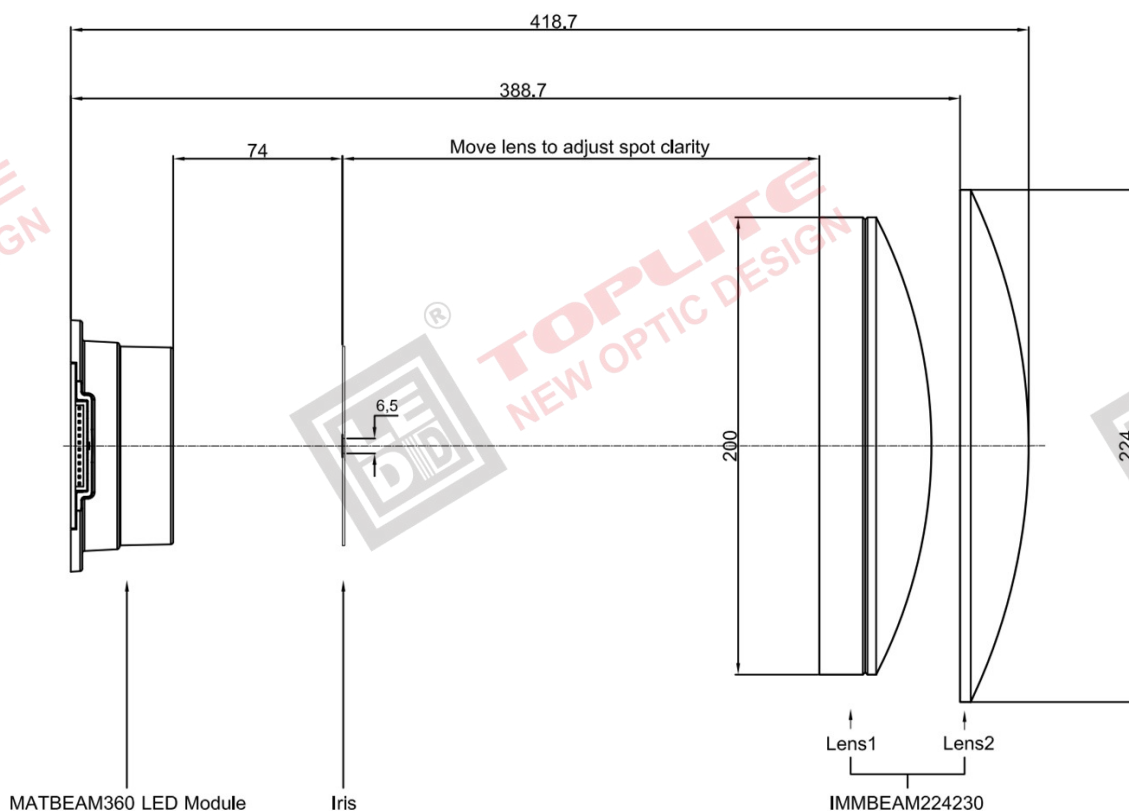


Figure 5. MATBEAM360 LED matrix module and collimating optics I IMMBEAM224230



Figure 6. Pencil-like beam produced by collimating optics I IMMBEAM224230 lens.

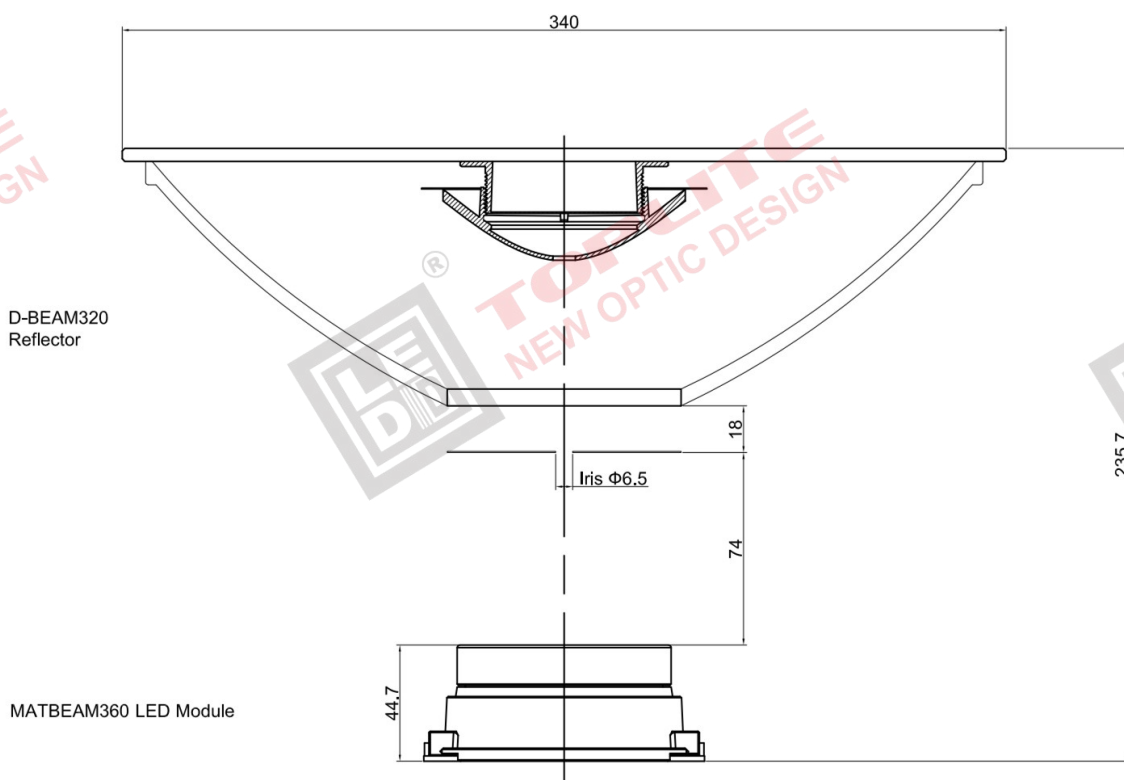


Figure 7. MATBEAM360 LED matrix module and collimating optics II D-BEAM320



Figure 8. Pencil-like beam light produced by collimating optics II D-BEAM320 reflector.

- Test data

Illumination(lx), beam angle(°) throw distance 10m	LED matrix module I	LED matrix module II
Collimating optics I	65,000 lx, 1.5°	80,000 lx, 1.5°
Collimating optics II	72,000 lx, 1°	100,000 lx, 1°

- Light pattern

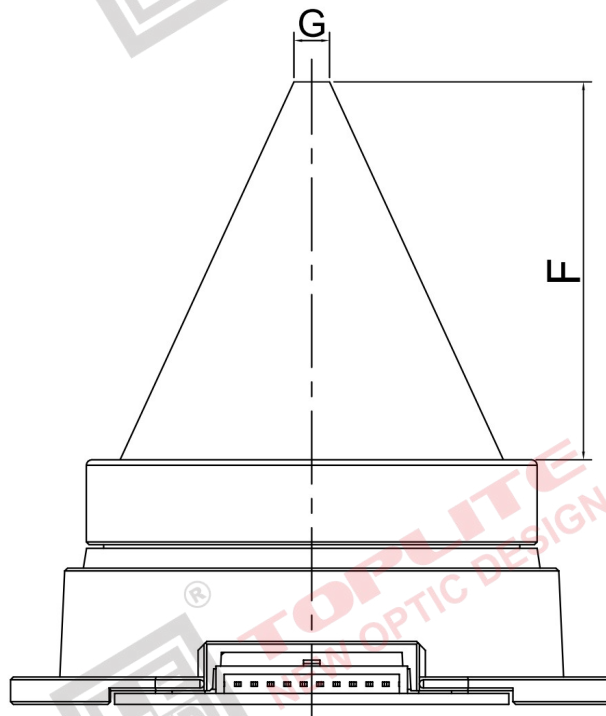


Figure 9. Light pattern of the MATBEAM360 LED matrix module